

Docket No.: 713-409

PATENT

In re Application of

Wayne Morgan JOHN et al.

Serial No. Not yet assigned

Filed: March 22, 2001

For: WEATHER RESISTANT ANTI-SLIP PANELS

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: Group Art Unit: Not yet assigned
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: Examiner: N/A



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CLAIM OF PRIORITY AND
TRANSMITTAL OF CERTIFIED PRIORITY DOCUMENT

Assistant Commissioner For Patents
Washington, D.C. 20231

Dear Sir:

In accordance with the provisions of 35 U.S.C. 119, Applicant hereby claims the priority
of:

G.B. Patent Application No. 0006962.5 filed March 22, 2000
G.B. Patent Application No. 0027205.4 filed March 22, 2000

cited in the Declaration of the present application.

The certified copy is submitted herewith.

Respectfully submitted,

LOWE HAUPTMAN GILMAN & BERNER, LLP

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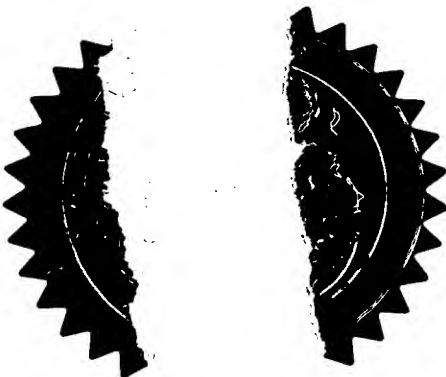


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Signed *Andrew Gasey*
Dated 24 JAN 2001

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22 MAR 2000

Request for grant of a patent

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The Patent Office

Cardiff Road
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1.	Your reference	BP-08-1413		
2.	Patent application number (The Patent Office will fill in this part)	0006962.5		
3.	Full name, address and postcode of the or of each applicant (underline all surnames)	Illinois Tool Works, Inc. 3600 West Lake Avenue Glenview, Illinois 60025 United States of America Patents ADP number (if you know it) If the applicant is a corporate body, give the country/state of its incorporation		
		511618003 Incorporated in the State of Delaware, United States of America		
4.	Title of the invention	ANTI-SLIP PANELS		
5.	Name of your agent (if you have one)	Phillips & Leigh		
	"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)	7 Staple Inn Holborn London WC1V 7QF		
	Patents ADP number (if you know it)	0001289001		
6.	If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number	Country	Priority application number (if you know it)	Date of filing (day / month / year)
7.	If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application	Number of earlier application		Date of filing (day / month / year)
8.	Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if: a) any applicant named in part 3 is not an inventor, or b) there is an inventor who is not named as an applicant, or c) any named applicant is a corporate body. See note (d))	YES		

Patents Form 1/77

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Continuation sheets of this form

Description	4
Claim(s)	1
Abstract	-
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10. If you are also filing any of the following, state how many against each item.

Priority documents

Translation of priority documents

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

To follow

Request for preliminary examination and search (*Patents Form 9/77*)

1

Request for substantive examination (*Patents Form 10/77*)

1

Any other documents
(please specify)

11.

I/We request the grant of a patent on the basis of this application.



Signature
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Date
22 March 2000

12. Name and daytime telephone number of person to contact in the United Kingdom

Robert D Weston

0171 405 0133

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Notes

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ANTI-SLIP PANELS

This invention relates to anti-slip flooring panels and the like pre-formed and pre-coated anti-slip products; hereinafter referred to as anti-slip panels.

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Anti-slip panels were, typically formed from wood panels, for example of plywood or the like weather vulnerable material, to all surfaces of which an anti-slip aggregate was bonded. The anti-slip aggregate was, for example, of sharp, aluminium oxide or silicon carbide particles with a resin bonding agent. All surfaces were coated so as to protect and enhance the weather durability of the wooden substrate. Anti-slip panels are now being made with a synthetic or weather resistant substrate, such as glass reinforced plastic, that does not need to be weather proofed and are provided with the anti-slip coating restricted to the working surface or surfaces. The problem with known anti-slip panels is that the anti-slip coating particles are very hard, making the anti-slip coating very difficult to cut, as it readily and speedily blunts a cutting tool. Consequently, anti-slip panels are currently either only made to standard sizes or shapes or to specified sizes and shapes, in each case being cut or otherwise formed prior to application of the anti-slip coating. The standard sized panels obviously limit usage and the special sized panels are, obviously, more expensive to produce. People do attempt to cut anti-slip panels on site, using angle grinders, diamond cutters and similar special tools, but generally without success, as even the special tools are damaged and blunted by the anti-slip aggregate.

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According to the present invention, an anti-slip panel comprises an anti-slip coating on a substrate having a pattern of anti-slip free areas on the or each working surface thereof. A patterned anti-slip panel in accordance with the present invention overcomes the above-stated problems because it can simply and readily be cut to shape on site.

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According to a first embodiment of the present invention, the pattern comprises anti-slip coating-free areas of substrate on the or each working surface thereof.

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According to a second embodiment of the present invention, the substrate is of a weather resistant material with only the or each working surface thereof provided with an anti-slip coating.

According to a third embodiment of the present invention, the anti-slip coating comprises anti-slip particles in an adherent coating. The pattern may comprise particle-free areas of coated substrate.

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According to a fourth embodiment of the present invention and wherein the substrate is of a weather vulnerable material, the whole surface of which is coated and the or each working surface has a pattern of anti-slip particles. An anti-slip panel in accordance with this embodiment of the present invention can be cut on site, leaving only the cut edges coating free and weather vulnerable.

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Whilst the substrate is, preferably, of a synthetic or weather resistant material, there is no reason why wooden or the like weather vulnerable substrates could not be used where a temporary anti-slip panel that is still cuttable on site, is required.

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Both coating-free and particle-free patterns are readily cuttable on site.

According to a preferred embodiment of the present invention, the pattern is formed by a regular array of coating-free or particle-free cuttable lines.

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An anti-slip panel in accordance with this embodiment of the present invention, has the additional advantage that the cuttable lines also form cutting guide lines.

The pattern may be of:-

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- a standard rectangular grid, to various dimensions;
- a diagonal or rhombic design;
- simple perpendicular or parallel lines, for stair tread panels;
- or,
- circular or other shaped areas for fixing holes or cut outs.

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The above and other features of the present invention are illustrated by the following example.

Example (a standard anti-slip panel)

A sheet of weather resistant, glass reinforced plastic, for example an unsaturated polyester based on an orthophthalic resin filled with e-glass fibre, 2000-3000 mm long x 1000-2000 mm wide x 3-3.5 mm thick, has a regular grid pattern of 25 mm squares formed on the working surface thereof by laying down lines of 5 mm wide self-adhesive masking tape. A coating of a base resin, for example an unsaturated polyester based on an orthophthalic resin, was then applied to the working surface with a coverage of approximately 0.1-0.15 kg per sq. metre and aluminium oxide aggregate particle size 0.85-1.7 mm was sprinkled onto the coating with a coverage of 1.8-2.0 Kg per sq. metre. Excess aggregate was tipped off and the masking tape was removed prior to curing. Once the coating had been permitted to cure, further excess aggregate was brushed off, to leave a pattern of lines of coating-free substrate on the or each working surface of the panel. The patterned, coated surface can be over-rolled or over-coated with resin, for example the same unsaturated polyester based on an orthophthalic resin, with a coverage of 0.45-0.50 Kg per sq. metre, to further improve bonding of the aggregate to the substrate, to enhance durability and to look clean and tidy aesthetically.

In use, the panel can be cut on site, using any cutting tool suitable to the substrate material, to a selected shape; defined by cutting along the appropriate pattern lines.

Other production methods include screen printing the resin and/or the aggregate or the use of a template.

Controlling the pattern of aggregate, enables the whole surface of the substrate to be coated and this can form a measure of protection for a weather vulnerable substrate. The pattern of aggregate-free lines or the like on the coated substrate is still readily cuttable by conventional tools.

In addition to providing cutting lines, the pattern can have a decorative effect or form drainage channels in the aggregate.

In an alternative example, a pattern of aggregate could be embedded in the surface of an uncured resin substrate or in alternative thermo-set or thermo-plastic substrate materials. In each case an aggregate-free pattern is left in the substrate working surface, along which the anti-slip panel can be cut on site.

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Whilst the invention has been described with reference to simply-shaped sheet substrates, it is equally applicable to stair treads with pre-formed nosing or other particularly shaped GRP or plastics substrates or mouldings.

CLAIMS:

1. An anti-slip panel comprising an anti-slip coating on a substrate and having a pattern of anti-slip free areas on the or each working surface thereof.
- 5 2. A panel as claimed in claim 1, wherein the pattern comprises anti-slip coating-free areas of substrate on the or each working surface thereof.
3. A panel as claimed in claim 1, wherein the substrate is of a weather resistant material with only the or each working surface thereof provided with an anti-slip coating.
- 10 4. A panel as claimed in any of claims 1 to 3, wherein the anti-slip coating comprises anti-slip particles in an adherent coating.
- 15 5. A panel as claimed in claim 4, wherein the pattern comprises particle-free areas of coated substrate.
6. A panel as claimed in claim 4 or claim 5, wherein the substrate is of a weather vulnerable material the whole surface of which is coated and the or each working surface has a pattern of anti-slip particles.
- 20 7. A panel as claimed in claim 1, wherein the or each working surface has a pattern of anti-slip particles embedded therein.
- 25 8. A panel as claimed in any of claims 1 to 7, wherein the pattern is formed by a regular array of coating-free or particle-free cuttable lines.
9. An anti-slip panel substantially as described.

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